General

Guideline Title

Occupational therapy practice guidelines for adults with serious mental illness.

Bibliographic Source(s)

Brown C. Occupational therapy practice guidelines for adults with serious mental illness. Bethesda (MD): American Occupational Therapy Association, Inc. (AOTA); 2012. 115 p.

Guideline Status

This is the current release of the guideline.

Recommendations

Major Recommendations

Note from the National Guideline Clearinghouse: In addition to the evidence-based recommendations below, the guideline includes extensive information on the referral and evaluation process, including creation of the occupational profile and the development of an intervention plan.

Implications for Occupational Therapy Practice

There is significant evidence for many interventions within the domain of practice for occupational therapy that are effective in improving occupational performance. Occupational therapy practitioners must be "knowledgeable about evidence-based research and [apply] it ethically and appropriately to provide occupational therapy services consistent with best practice approaches." The following general recommendations are based on the evidence described in the original guideline (see the table below for more specific recommendations):

- Individuals with severe mental illness are able to acquire and maintain new knowledge and skills. Occupational therapy interventions should identify the specific knowledge and skills that are needed for an individual to succeed in the areas of occupation in which he or she needs or wants to succeed.
- Knowledge and skills-training outcomes are improved when the intervention is individualized, presented in a manner that is relevant and applicable to daily life, and incorporates training over an extended period of time (i.e., months as opposed to days or weeks).
- Client-centered practices that incorporate choice and collaboration promote better outcomes. Occupational therapists should seek input and create initial treatment plans that are based on the desires of the individual client.
- Improvements are most likely to occur in areas that are most proximal to the intervention; for example, cognitive interventions improve cognition, skills training results in improvements in the targeted skills, or supported employment most affects the client's ability to find a job. It is less likely that generalizability of skills will occur without specific efforts toward that effect. For example, cognitive interventions generally do not result in occupational performance improvements unless they specifically target the occupation (e.g., cognitive-skills training

incorporated in work or social-skills training). Occupational therapists, then, should select the intervention that most closely targets the desired outcome.

- Intervention in real-world environments is more effective than interventions that focus on pretraining or preliminary skill building; for example, the supported models (education and employment) indicate that pretraining is less effective than placement in actual work and educational settings and the training and support that are acquired in those real-world settings.
- Adapting the environment is a useful approach for improving occupational performance in individuals with serious mental illness. For example, cognitive adaptation training and job accommodations compensate for cognitive, sensory, and other impairments that interfere with successful community living. Occupational therapists are skilled in adapting the environment and can use this approach for addressing all areas of occupation.

Table. Recommendations for Occupational Therapy Interventions for Adults with Serious Mental Illness*

Areas of Occupation	Recommended	No Recommendation	Not Recommended
General	• Supported employment or individual placement and support (IPS) programs to improve work placement in competitive employment and other vocational outcomes, in particular for those programs with high fidelity to the IPS model (A) • Supported education programs to meet postsecondary education goals (B) • Life and social skills training, with extended training in natural environments (B) • Skills training plus health care management (B) • Grocery shopping group to improve grocery shopping skills (C) • Parenting skills program (C) • Lifestyle interventions to improve health behaviors related to obesity and metabolic syndrome (A) • Physical activity, exercise, and outdoor activities improve symptoms of depression and anxiety (B) • Money management training (I)	• Supported employment programs to improve nonvocational outcomes (C) • Ability to generalize life and social skills training from one environment or skill area to another (I)	• Prevocational employment programs (D)
Performance Skills			
Cognitive	• Cognitive remediation to improve life skills tied to real life practice (B) • Cognitive skills training in conjunction with supported employment (B) • Social cognition and problem-solving training (B) • Cognitive training to improve cognitive skills (B)	• Cognitive remediation to improve life skills without real-life practice (I)	
Emotional regulation	• Emotional regulation and social skills training in conjunction with supported employment (B) • Activity group to improve social interaction skills (C)	• Stress management in conjunction with a job program (I)	
Performance Patterns			
Routines	• Interpersonal and social rhythm therapy to establish and maintain routines for people with bipolar disorder (B)		

Table 3. Recommendations for Occupational Therapy Interventions for Adults with Serious Mental Illness*			
Areas of Occupation	Recommended	No Recommendation	Not Recommended
Roles	• Client-centered role development program for the development of task and interpersonal skills within social roles (C)		
Context and environment	• Environmental supports improve adaptive functioning (A) • Cooking skills are improved in both clinic and home environment (B) • In-home employment program to prepare for community-based employment (C)		
Activity demands	• Use of a work behavior inventory to provide work-related feedback in combination with supported employment (B)		

*Note: Recommendation criteria are based on the standard language of the Agency for Healthcare Research and Quality (2009) (see definitions below). Suggested recommendations are based on the available evidence and content experts' opinions.

Definitions:

A—Strongly recommend that occupational therapy practitioners routinely provide the intervention to eligible clients. Good evidence was found that the intervention improves important outcomes and concludes that benefits substantially outweigh harm.

B—Recommend that occupational therapy practitioners routinely provide the intervention to eligible clients. At least fair evidence was found that the intervention improves important outcomes and concludes that benefits outweigh harm.

C—There is weak evidence that the intervention can improve outcomes, and the balance of the benefits and harms may result either in a recommendation that occupational therapy practitioners routinely provide the intervention to eligible clients or in no recommendation because the balance of the benefits and harm is too close to justify a general recommendation.

D—Recommend that occupational therapy practitioners do not provide the intervention to eligible clients. At least fair evidence was found that the intervention is ineffective or that harm outweighs benefits.

I—Insufficient evidence to recommend for or against routinely providing the intervention. Evidence that the intervention is effective is lacking, of poor quality, or conflicting and the balance of benefits and harm cannot be determined.

Levels of Evidence for Occupational Therapy Outcomes Research

Levels of Evidence	Definition
Level I	Systematic reviews, meta-analyses, and randomized, controlled trials
Level II	Two groups, nonrandomized studies (e.g., cohort, case control)
Level III	One group, nonrandomized (e.g., before-after, pretest and posttest)
Level IV	Descriptive studies that include analysis of outcomes (e.g., single-subject design, case series)
Level V	Case reports and expert opinions, which include narrative literature reviews and consensus statements

Note: Adapted from "Evidence-based medicine: What it is and what it isn't." D. L. Sackett, W. M. Rosenberg, J. A. Muir Gray, R. B. Haynes, & W. S. Richardson, 1996, *British Medical Journal, 312,* pp. 71-72.

Clinical Algorithm(s)

None provided

Scope

Disease/Condition(s)

Serious mental illness, including schizophrenia/schizoaffective disorder, bipolar disorder, and major depression

Note: Defining serious mental illness is challenging and has political, economic, and social ramifications. Definitions differ in both the clinical and policy literature; however, definitions are typically based on a combination of diagnosis, functional impairment, and duration of illness.

Guideline Category

Counseling

Diagnosis

Evaluation

Management

Rehabilitation

Treatment

Clinical Specialty

Family Practice

Internal Medicine

Physical Medicine and Rehabilitation

Psychiatry

Psychology

Intended Users

Advanced Practice Nurses

Allied Health Personnel

Health Care Providers

Managed Care Organizations

Nurses

Occupational Therapists

Physical Therapists

Physician Assistants

Physicians

Psychologists/Non-physician Behavioral Health Clinicians

Public Health Departments

Social Workers

Utilization Management

Guideline Objective(s)

- To help occupational therapists and occupational therapy assistants, as well as the individuals who manage, reimburse, or set policy regarding occupational therapy services, understand the contribution of occupational therapy in treating adults with serious mental illness
- To serve as a reference for consumers, consumer providers, mental health program administrators and other mental health program staff, mental health advocates, health care regulators, third-party payers, and managed care organizations
- To define the occupational therapy domain and process and interventions that occur within the boundaries of acceptable practice

Target Population

Adults (aged 18 to 65 years) with serious mental illness

Interventions and Practices Considered

1. Referral for occupational services
2. Evaluation
    - Developing the occupational profile
    - Analysis of occupational performance through observation and assessment
3. Developing an intervention plan
    - Supported employment or individual placement and support (IPS) programs
    - Supported education programs
    - Life and social skills training/health care management
    - Community living skills (grocery shopping group)
    - Parenting skills program
    - Lifestyle interventions to improve health behaviors related to obesity and metabolic syndrome
    - Physical activity, exercise, and outdoor activities
    - Money management training
    - Cognitive skills training
    - Emotional regulation and emotional skills training
    - Interpersonal and social rhythm therapy
    - Client-centered role development program
4. Follow-up

Major Outcomes Considered

Occupational performance and role competence in paid and unpaid employment (volunteer opportunities, home management, education)

Methodology

Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Primary Sources)

Hand-searches of Published Literature (Secondary Sources)

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

The evidence described herein presents the results of two systematic reviews developed through American Occupational Therapy Association's (AOTA's) Evidence-Based Literature Review Project. One systematic review was supported by AOTA as part of an academic partnership with Eastern Kentucky University (EKU) as a major investigation project fulfilling the master's-degree requirement for a nonthesis contribution. The second systematic review was supported by AOTA as part of an academic partnership with the Medical College of Georgia (MCG). Two occupational therapy students participated in the project in partial completion of the requirements for their master's degree.

The literature searches for the evidence reviews covered the period 1990–2009. More recent articles (2010–2012) were also included based on the recommendations of content experts who participated in the external review process.

For the first academic partnership, three EKU graduate students, one faculty advisor, and AOTA project staff took part in the review. The EKU faculty advisor and AOTA staff developed the focused question. An advisory group consisting of occupational therapy practitioners, educators, and researchers with expertise in mental health provided input toward the development of the question. The EKU students, with support from AOTA staff and the advisory group, developed a search strategy to include the population, inclusion and exclusion criteria, and key search terms based on the population, interventions, and outcomes.

The key search terms for interventions were based on the following areas of occupation from the *Occupational Therapy Practice Framework: Domain and Process*: work, instrumental activities of daily living (including homemaking and cooking), and education. To operationalize serious mental illness, the group used the Center for Mental Health Services' definition requiring a person to have at least one 12-month disorder other than a substance use disorder, to meet criteria according to the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM–IV–TR*; American Psychiatric Association, 2000), and to have serious impairment (Substance Abuse Mental Health Services Administration Public Health Services Act, 1993). Table B2 in the original guideline document provides a comprehensive list of the search terms used for both systematic reviews.

Articles included in the review met the following criteria: published in a peer-reviewed journal, limited to English-language articles, participants had a diagnosis of severe mental illness and were between the ages of 18 and 65, and interventions were within the scope of occupational therapy practice. Only studies determined to be Level I (i.e., randomized controlled trials, systematic reviews, meta-analyses), Level II (i.e., nonrandomized clinical trials, cohort studies), and Level III (i.e., before–after, one-group designs) evidence were included. Studies were excluded if they were published before 1990, were Level IV or Level V evidence, used purely qualitative methods, were not peer reviewed, used geriatric or pediatric interventions, or used interventions outside the scope of occupational therapy practice. Databases searched included the Cumulative Index to Nursing and Allied Health Literature (CINAHL), MEDLINE, PsycINFO, HealthSTAR, Alternative Medicine (AMED), Social Work Abstracts, Cochrane Central Register of Controlled Trials and Database of Systemic Reviews, Database of Abstracts of Effects, American College of Physicians (ACP) Journal Club, and OT Seeker.

An initial search was completed in conjunction with a research librarian at EKU. In addition, a medical librarian with experience in conducting systematic reviews completed a second search using a filter based on one developed at McMaster University. The list of 950 citations and abstracts from both searches was reviewed, and 145 potential articles were evaluated according to inclusion and exclusion criteria.

For the academic partnership with MCG, an advisory group consisting of occupational therapy practitioners, educators (including MCG faculty) and researchers with expertise in mental health, AOTA staff, and a consultant to AOTA's Evidence-Based Practice (EBP) projects developed the focused question for the systematic review. The MCG team, with support from AOTA staff and the advisory group, developed a search strategy to include the population; inclusion and exclusion criteria; and key search terms based on the population, interventions, and outcomes using the same search terms developed by the EKU group. Articles included in the review met the following criteria: published in a peer-reviewed journal, limited to English language, participants had a diagnosis of severe mental illness and were between the ages of 18 and 65, and interventions were within the scope of occupational therapy practice.

Only studies determined to be Level I, Level II, or Level III evidence were included. Studies were excluded if they were published before 1990, were Level IV or V evidence, used purely qualitative methods, were not peer reviewed, were limited to geriatric or pediatric populations, or used interventions outside the scope of occupational therapy practice. Databases searched included CINAHL, MEDLINE, PsycINFO, HealthSTAR, AMED, Social Work Abstracts, Cochrane Central Register of Controlled Trials and Database of Systemic Reviews, Database of Abstracts of Effects, ACP Journal Club, and OT Seeker.

The search of the databases was completed by a medical librarian with experience in conducting systematic reviews using a filter based on one developed at McMaster University. Abstracts were sought for all citations from this review. All abstracts were downloaded into Zotero (http://www.zotero.org), a free Web-based citation manager extension of Mozilla Firefox that was used to manage all abstracts and articles. All 1,964 abstracts identified by the search process were reviewed by at least three individuals working on the project using

the inclusion/exclusion criteria described above. A total of 101 articles were acquired and assigned to individual reviewers. After further review, some of the articles were found to not meet the inclusion criteria and were excluded from the final review. Additional articles were identified from reviews of reference lists and hand searches.

Number of Source Documents

A total of 96 articles were included in the review of the two focused questions.

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Levels of Evidence for Occupational Therapy Outcomes Research

Levels of Evidence	Definitions
Level I	Systematic reviews, meta-analyses, randomized controlled trials
Level II	Two groups, nonrandomized studies (e.g., cohort, case-control)
Level III	One group, nonrandomized (e.g., before and after, pretest and posttest)
Level IV	Descriptive studies that include analysis of outcomes (e.g., single-subject design, case series)
Level V	Case reports and expert opinion that include narrative literature reviews and consensus statements

Note: Adapted from "Evidence-based medicine: What it is and what it isn't." D. L. Sackett, W. M. Rosenberg, J. A. Muir Gray, R. B. Haynes, & W. S. Richardson, 1996, *British Medical Journal, 312,* pp. 71-72. Copyright © 1996 by the British Medical Association. Adapted with permission.

Methods Used to Analyze the Evidence

Review of Published Meta-Analyses

Systematic Review with Evidence Tables

Description of the Methods Used to Analyze the Evidence

The evidence described herein presents the results of two systematic reviews developed through the American Occupational Therapy Association's (AOTA's) Evidence-Based Literature Review Project. One systematic review was supported by AOTA as part of an academic partnership with Eastern Kentucky University (EKU) as a major investigation project fulfilling the master's-degree requirement for a nonthesis contribution. The second systematic review was supported by AOTA as part of an academic partnership with the Medical College of Georgia (MCG). Two occupational therapy students participated in the project in partial completion of the requirements for their master's degree.

For the systemic review performed in partnership with EKU, articles selected for inclusion were analyzed and critically appraised, and individual articles were summarized in an evidence table. A Critically Appraised Topic (CAT) further summarized and synthesized the information, and both the evidence table and CAT were submitted to AOTA staff and the project consultant for review. The students presented on the review process and the AOTA collaboration as a component of requirements for their master's project. A total of 46 articles were selected for final analysis in the review. Of those, 37 were Level I studies, 5 were Level II studies, and 4 were Level III studies (see the "Rating Scheme for the Strength of the Evidence" field).

For the academic partnership with MCG, the 50 articles that met all inclusion criteria were analyzed and critically appraised and summarized in an

evidence table. A CAT further summarized and synthesized the information, and both the evidence table and CAT were submitted to AOTA staff and the project consultant for review.

Thirty-one of the articles included in the review were Level I studies, 13 were Level II studies, and 6 were Level III studies. The evidence table of all articles included in both reviews can be found in Appendix C of the original guideline document. A total of 96 articles were included in the review of the two focused questions. Although the review included published literature from occupational therapy as well as related fields, all studies provided evidence within the scope of occupational therapy practice. Sixty-seven (71%) of the articles were at Level I, and 85 (89%) of the articles were at Level I or Level II, indicating that the review incorporated evidence at the highest levels.

Limitations in several of the studies incorporated into the review included lack of randomization, lack of a control group, small sample size, lack of blinding of researcher to treatment allocation, limited follow-up, and sampling bias. In several studies, the dropout rate by participants was large and may not have been documented. In addition, several studies did not describe the experimental and control conditions, and in others, the intervention and comparison groups varied with respect to intensity of intervention. In some studies, the validity of the outcome measure was not reported, and in several, the outcome measures were similar to the intervention. The definition or description of occupational therapy programs also varied from study to study. Generalization of results of a number of studies was limited when a study was gender-specific or the study did not take place in the United States.

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

Three Eastern Kentucky University (EKU) graduate students, one faculty advisor, and American Occupational Therapy Association (AOTA) project staff took part in the review. The EKU faculty advisor and AOTA staff developed the focused question. An advisory group consisting of occupational therapy practitioners, educators, and researchers with expertise in mental health provided input toward the development of the question. The EKU students, with support from AOTA staff and the advisory group, developed a search strategy to include the population, inclusion and exclusion criteria, and key search terms based on the population, interventions, and outcomes.

The findings from studies included in the systematic reviews also were used to develop evidence-based recommendations. The recommendations are based on the strength of the evidence for a given topic from the systematic reviews in combination with the expert opinions of the review authors and content experts reviewing the guideline. The strength of the evidence is determined by the number of articles included in a given topic, the study design, and limitations of those articles. The review authors and other content experts provided clinical expertise regarding the value of using a given intervention in practice. Recommendation criteria are based on standard language developed by the U.S. Preventive Services Task Force of the Agency for Health Care Research and Quality. More information regarding these criteria can be found at the U.S. Preventive Services Task Force Web site .

Rating Scheme for the Strength of the Recommendations

Strength of Recommendations

A—Strongly recommend that occupational therapy practitioners routinely provide the intervention to eligible clients. Good evidence was found that the intervention improves important outcomes and concludes that benefits substantially outweigh harm.

B—Recommend that occupational therapy practitioners routinely provide the intervention to eligible clients. At least fair evidence was found that the intervention improves important outcomes and concludes that benefits outweigh harm.

C—There is weak evidence that the intervention can improve outcomes, and the balance of the benefits and harms may result either in a recommendation that occupational therapy practitioners routinely provide the intervention to eligible clients or in no recommendation because the balance of the benefits and harm is too close to justify a general recommendation.

D—Recommend that occupational therapy practitioners do not provide the intervention to eligible clients. At least fair evidence was found that the intervention is ineffective or that harm outweighs benefits.

I—Insufficient evidence to recommend for or against routinely providing the intervention. Evidence that the intervention is effective is lacking, of

poor quality, or conflicting and the balance of benefits and harm cannot be determined.

Note: Recommendation criteria are based on the standard language of the Agency for Healthcare Research and Quality (2009). Suggested recommendations are based on the available evidence and content experts' opinions.

Cost Analysis

A formal cost analysis was not performed and published cost analyses were not reviewed.

Method of Guideline Validation

Peer Review

Description of Method of Guideline Validation

Not stated

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The type of supporting evidence is identified and graded for each recommendation (see the "Major Recommendations" field).

A total of 96 articles were included in the review of the two focused questions. Although the review included published literature from occupational therapy as well as related fields, all studies provided evidence within the scope of occupational therapy practice. Sixty-seven (71%) of the articles were at Level I, and 85 (89%) of the articles were at Level I or Level II, indicating that the review incorporated evidence at the highest levels. The evidence table of all articles included can be found in Appendix C of the original guideline document.

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

These guidelines may be used to:

- Assist occupational therapists and occupational therapy assistants in communicating about their services to external audiences
- Assist other health care practitioners, teachers, and program administrators in determining whether referral for occupational therapy services would be appropriate
- Assist third-party payers in understanding the medical necessity for occupational therapy services for adults with serious mental illness
- Assist legislators, third-party payers, and administrators in understanding the professional education, training, and skills of occupational therapists and occupational therapy assistants
- Assist program developers, administrators, legislators, and third-party payers in understanding the scope of occupational therapy services
- Assist program evaluators and policy analysts in determining outcome measures for analyzing the effectiveness of occupational therapy intervention
- Assist policy and health care benefit analysts in understanding the appropriateness of occupational therapy services for adults with serious mental illness
- Assist occupational therapy educators in designing appropriate curricula that incorporate the role of occupational therapy with adults with serious mental illness

Potential Harms

Not stated

Qualifying Statements

Qualifying Statements

- This guideline does not discuss all possible methods of care, and although it does recommend some specific methods of care, each individual occupational therapist must make the ultimate judgment regarding the appropriateness of a given procedure in light of a specific client's circumstances and needs.
- This publication is designed to provide accurate and authoritative information in regard to the subject matter covered. It is sold or distributed with the understanding that the publisher is not engaged in rendering legal, accounting, or other professional service. If legal advice or other expert assistance is required, the services of a competent professional person should be sought.
- It is the objective of the American Occupational Therapy Association to be a forum for free expression and interchange of ideas. The opinions expressed by the contributors to this work are their own and not necessarily those of the American Occupational Therapy Association.

Implementation of the Guideline

Description of Implementation Strategy

An implementation strategy was not provided.

Implementation Tools

Staff Training/Competency Material

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Living with Illness

IOM Domain

Effectiveness

Patient-centeredness

Identifying Information and Availability

Bibliographic Source(s)

Brown C. Occupational therapy practice guidelines for adults with serious mental illness. Bethesda (MD): American Occupational Therapy Association, Inc. (AOTA); 2012. 115 p.

Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2012

Guideline Developer(s)

American Occupational Therapy Association, Inc. - Professional Association

Source(s) of Funding

American Occupational Therapy Association, Inc.

Guideline Committee

Not stated

Composition of Group That Authored the Guideline

Author: Catana Brown, PhD, OTR, FAOTA, Associate Professor, Midwestern University, College of Health Sciences, Glendale, AZ

Issue Editor: Marian Arbesman, PhD, OTR/L, President, ArbesIdeas, Inc., Consultant, AOTA Evidence-Based Practice Project, Clinical Assistant Professor, Department of Rehabilitation Science, State University of New York at Buffalo

Series Editor: Deborah Lieberman, MHSA, OTR/L, FAOTA, Program Director, Evidence-Based Practice, Staff Liaison to the Commission on Practice, American Occupational Therapy Association, Bethesda, MD

Financial Disclosures/Conflicts of Interest

Not stated

Guideline Status

This is the current release of the guideline.

Guideline Availability

Electronic copies: Not available at this time.

Print copies: Available for purchase from The American Occupational Therapy Association (AOTA), Inc., 4720 Montgomery Lane, Bethesda, MD 20814, Phone:1-877-404-AOTA (2682), TDD: 800-377-8555, Fax: 301-652-7711. This guideline can also be ordered online at the AOTA Web site.

Availability of Companion Documents

The following is available:

- Occupational therapy practice framework: domain and process. 2nd ed. 2008. Available to order from the American Occupational Therapy Association (AOTA) Web site .
- Arbesman M, Logsdon DW. Occupational therapy interventions for employment and education for adults with serious mental illness: a systematic review. Am J Occup Ther 2011 May/Jun;65(3):238-246. Available to subscribers from the American Journal of Occupational Therapy Web site .

In addition, case descriptions are available in the original guideline document.

Patient Resources

None available

NGC Status

This NGC summary was completed by ECRI Institute on December 7, 2012.

Copyright Statement

Disclaimer

NGC Disclaimer